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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,096	08/17/2001	John B. Kenney	11721USO2	9212

7590 02/09/2005

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EXAMINER	
LE, VIET Q	

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/857,096	KENNEY ET AL.	
	Examiner	Art Unit	
	Viet Q. Le	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *08/17/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract section should be on a clean sheet of paper and should only have the heading of "ABSTRACT" instead of "NEW ABSTRACT". Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities: the title of the application shall not appear on top of the specification section.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 20-21, 23-28, 30-33, are rejected under 35 U.S.C. 102(e) as being anticipated by Pascal Chauffour et al. (U.S. 5,870,397), hereinafter referred to as Pascal.

Regarding claims 20 and 27, Pascal disclosed a method of generating replacement data for different types of communication transmitted over a communication network (Replacement data (white noise) were generated for silence periods at the output. See column 5, lines 10-32), the method comprising: detecting the type of communication (Different types of traffic can enter the input node. Voice or data can be transformed into packets. See fig. 1, blocks 10 and 20; See column 1, lines 25-28); adjusting at least a first value in response to the detecting (in detecting the silence white noise will be generated at the output. First noise level will be that instantaneous level of noise. See column 4, lines 43-46); and fluctuating pseudo-randomly between the first value and a second value to generate an output value (Silence removal function is used to detect whether incoming traffic is a silence or the actual data or voice. Silence will not be transported across the network. Silence will be replaced by white noise at the output. Levels of white noise levels generated will be fluctuating depending on the incoming noise level at a time. See column 5, lines 29-33).

Regarding claims 21, 28, Pascal disclosed the method, wherein the first value comprises a positive sign and a magnitude and wherein the second value comprise a negative sign and the magnitude and wherein the fluctuating comprises fluctuating pseudo-randomly between the positive sign and the negative sign (Silence will be replaced by white noise at the output. First noise level or its first value will be that first instantaneous level of noise detected. Subsequent noise level or their subsequent vales will be the noise levels detected at the time. Different levels of white noise levels

generated will be fluctuating depending on the incoming noise level. See column 4, lines 43-46; See column 5, lines 29-33).

Regarding claims 23, 30, Pascal disclosed the method, wherein the types of communication comprises two or more of voice communication, facsimile communication and modem communication (Different types of traffic can enter the input node. Voice or data can be transformed into packets. Data traffic addressed in the reference can represent either facsimile or data traffic. See fig. 1, blocks 10 and 20; see column 1, lines 25-28).

Regarding claims 24, 31, Pascal disclosed the method, wherein the replacement data comprises white noise data (White noise is generated as replacement data for those silence packets detected at the input. See column 4, lines 19-23).

Regarding claims 25, 32, Pascal disclosed the method, wherein the communication network comprises a packet network (See fig. 1; See also column 4, lines 4-6).

Regarding claims 26, 33, Pascal disclosed the method, further comprising: receiving data packets from the packet network (See fig. 1, block 20); detecting lost data packets and producing in response a lost data output indicating when replacement data needs to be provided (Silence removal function is used to detect whether incoming traffic is a silence (lost packets) or the actual data or voice. Silence (lost packets) will not be transported across the network. Silence will be replaced by white noise at the output. See column 4, lines 15-23); removing overhead information from the data packets to produce output data (See column 3, lines 16-25); and inserting the output

value in response to the lost data output (Appropriate white noise level will be injected at the output in according with the lost data output signal generated from the input for those lost data packets. See column 4, lines 43-46).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pascal in view of Yushi Naito (U.S. 5,121,349), hereinafter referred to as Yushi.

Regarding claims 22 and 29, Pascal disclosed a method, wherein the fluctuating comprises: storing the magnitude in a multi-bit register (the VAD detects the incoming traffic as voice, data or silence. Depending on the incoming noise levels detected at the input, appropriate white noise levels will be generated at the output. These levels are stored to be regenerated at the output. See column 7, lines 30-37); and providing one of the positive sign and negative sign in conjunction with the magnitude as the output value (See column 7, lines 29-33).

Pascal, however, fails to disclose generating the positive sign and the negative sign can be generated by using the linear feedback shift register.

Yushi teaches the use of linear feedback shift register to provide multiple magnitudes to the noise generator (See fig. 3, block 12; See column 3, lines 29-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the linear shift register to store the information of either positive or negative into the bits provided by the shift register, the motivation being that using the linear shift register will provide users with capability to generate a pseudo-random white noise signal with sufficient noise characteristics at the output.

7. Claims 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pascal in view of Yushi and in further view of Dagedeviren Nuri Ruhi (U.S. 6,356,593), hereinafter referred to as Ruhi.

Regarding claim 34, Pascal disclosed an apparatus for generating replacement data for different types of communication transmitted over a communication network (Replacement data (white noise) were generated for silence periods at the output. See column 5, lines 10-32. Different types of traffic can enter the input node. Voice or data can be transformed into packets. See fig. 1, blocks 10 and 20; See column 1, lines 25-28); the apparatus comprising: a register control arranged to adjust at Least a first value in response to the detecting (Control circuitry is used to look at the control packets and to detect the silence states. See fig. 7, blocks 510 and 555).

Pascal, however, fails to disclose a plurality of registers arranged to fluctuate pseudo-randomly between the first value and a second value to generate an output value.

Yushi teaches the use of the digital noise generator using a pseudo random bit sequence stored in a plurality of registers and the linear feedback shift register to provide multiple magnitudes to the noise generator (See fig. 3, block 12; See column 3, lines 29-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the plurality of registers to store different incoming white noise levels to re-generate at the output, the motivation being that using the plurality of registers will be able to re-duplicate the appropriate noise levels at the time the silence was actually detected.

Pascal also fails to disclose an echo canceller can be arranged to detect the types of communication.

Ruhi disclosed the fact that the echo canceller can be used to detect the 2,100 HZ tone, which is used by all the data traffic or voice band data traffic. Echo cancellers will remain activated for all the voice traffic (no 2,100 HZ tone) and will disable when detecting the data traffic (2,100 HZ tone) (See column 2, lines 15-19).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the echo canceller to detect the incoming traffic, the motivation being that using the echo canceller, one can detect the traffic as either data or voice.

Regarding claim 35, Pascal disclosed the apparatus, wherein the first value comprises a positive sign and a magnitude and wherein the second value comprise a negative sign and the magnitude and wherein the fluctuating comprises fluctuating

pseudo-randomly between the positive sign and the negative sign (Silence will be replaced by white noise at the output. First noise level or its first value will be that first instantaneous level of noise detected. Subsequent noise level or their subsequent vales will be the noise levels detected at the time. Different levels of white noise levels generated will be fluctuating depending on the incoming noise level. See column 4, lines 43-46; See column 5, lines 29-33).

Regarding claim 36, Pascal, however, fails to disclose the registers comprise a linear feedback shift register arranged to fluctuate pseudo-randomly between the positive sign and the negative sign and a second register arranged to store magnitude so that one of the positive sign and negative sign is provided in conjunction with the magnitude as the output value.

Yushi teaches the use of the digital noise generator using a pseudo random bit registers and the shift register in conjunction with varying amplitude signals to provide multiple magnitudes to the noise generator (See fig. 3; See column 3, lines 29-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the plurality of different registers to associate different incoming white noise levels into certain types of registers and associate each of these types of these registers to appropriate magnitudes stored at other registers to re-generate at the output, the motivation being that using the plurality of registers will be able to re-duplicate the right noise levels at the time the silence was actually detected.

Regarding claim 37, Pascal fails to disclose an echo canceller can be arranged to detect voice communication, facsimile and MODEM communication.

Ruhi disclosed the fact that the echo canceller can be used to detect the 2,100 HZ tone, which is used by all the data traffic or voice band data traffic. Echo cancellers will remain activated for all the voice traffic (no 2,100 HZ tone) and will disable when detecting the data traffic (2,100 HZ tone) (See column 2, lines 15-19).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the echo canceller to detect the incoming traffic, the motivation being that using the echo canceller, one can detect the traffic as either data or voice.

Regarding claim 38, Pascal disclosed the method, wherein the replacement data comprises white noise data (White noise is generated as replacement data for those silence packets detected at the input. See column 4, lines 19-23).

Regarding claim 39, Pascal disclosed the method, wherein the communication network comprises a packet network (See fig. 1; See also column 4, lines 4-6).

Regarding claim 40, Pascal disclosed the apparatus, further comprising: a lost packet unit arranged to receiving data packets from the packet network (See fig. 1, block 20); detecting Lost data packets and producing in response a Lost data output indicating when replacement data needs to be provided (Silence removal function is used to detect whether incoming traffic is a silence (lost packets) or the actual data or voice. Silence (lost packets) will not be transported across the network. Silence will be replaced by white noise at the output. See column 4, lines 15-23); A data processing unit arranged to remove overhead information from the data packets to produce output data (See column 3, lines 16-25); A data play-out unit arranged to inserting the output

value in response to the lost data output (Appropriate white noise level will be injected at the output in according with the lost data output signal generated from the input for those lost data packets. See column 4, lines 43-46).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Leonard A. Pasdera et al. (U.S. 4,792,953), Digital signal error concealment.

b. Yau Chau Ching et al. (U.S. 4,002,841), Data compression using nearly instantaneous companding in a digital speech interpolation system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Le whose telephone number is 571-272-2246. The examiner can normally be reached on 8 AM -5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 2/7/05

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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